

**Listing of Claims:**

1. (Currently Amended) An optical debris analysis fixture for ~~obtaining a precise focus point for~~ imaging debris passing through an optical flow cell, comprising:
  - a plate having a plurality of component pin openings, wherein at least one set of said plurality of component pin openings are plate slots; and
  - a plurality of components detachably mounted to said plate, each of said plurality of components having at least two registration pins that fit into said plurality of component pin openings, wherein one of said plurality of components carries the optical flow cell, and wherein one of said plurality of component's pins are slidably moveable in said slots to allow precise positioning of said one component with respect to the other of said plurality of components.
2. (Original) The fixture according to claim 1, further comprising:
  - a pair of nudgers, said nudgers disposed on opposed sides of said one component, wherein said nudgers are detachably mounted to said plate and wherein said pair of nudgers slidably move said one component to a position within  $\pm 20$  microns with respect to the other of said components.
3. (Original) The fixture according to claim 1, wherein said plurality of components comprise:
  - a camera mount for carrying a camera;
  - a lens holder assembly for supporting a lens extending from said camera mount; and
  - an illuminator assembly which carries the optical flow cell.
4. (Original) The fixture according to claim 3, further comprising:
  - a pair of nudgers disposed on opposite sides of said illuminator assembly, wherein said nudgers are detachably mounted to said plate and wherein said pair of nudgers slidably move said one component to a position within  $\pm 20$  microns with respect to at least said camera mount.

5. (Original) The fixture according to claim 4, further comprising:
  - a light source carried by said plate for directing light through one side of said illuminator assembly and the optical flow cell for observation by the camera carried by said camera mount.
6. (Original) The fixture according to claim 5, wherein said illuminator assembly comprises:
  - a block;
  - a pair of flanges extending from opposite sides of said block, each said flange having a flange slot therethrough;
  - a pair of block pins extending downwardly from said block, said block pins receivable in said plate slots, wherein said block is slidable upon said plate by said pair of nudgers and wherein said flange slots receive fasteners that secure said block to said plate when said block is put into position.
7. (Original) The fixture according to claim 6, wherein said block has a flow cell housing slot and a flow cell flange slot both of which receive the optical flow cell, said illuminator assembly further comprising:
  - a hinged door for detachably securing the optical flow cell in the flow cell housing and flange slots.
8. (Original) The fixture according to claim 7, wherein said flow cell flange slot has a groove on both sides thereof.
9. (Original) The fixture according to claim 1, wherein said at least two registration pins for each of said plurality of components and said plurality of component pin openings that receive said registration pins are aligned lengthwise along said plate.
10. (Currently Amended) ~~A~~ An optical debris analysis fixture for imaging ~~particles~~ debris passing through an optical flow cell, comprising:

a plate having a plurality of component pin openings and a plurality of mount holes;

a camera mount assembly having a pair of registration pins receivable in a first pair of said plurality of component pin openings, said camera mount having a pair of base holes alignable with a first pair of said mount holes for receiving fasteners to secure said camera mount assembly to said plate; and

an illuminator assembly having a pair of registration pins receivable in a second pair of said plurality of component pin openings which are in the form of slots, said illuminator assembly having a set of flange slots alignable with a second pair of said mount holes for receiving fasteners to secure said illuminator assembly to said plate.

11. (Original) The fixture according to claim 10, further comprising:  
a pair of nudgers positioned on opposite sides of said illuminator assembly, each said nudger having a rail having a slide slot therethrough, and a head extending from said rail, each head having an adjuster moveable with respect to said head, said slide slots receiving fasteners receivable in a third pair of mount hole to secure said nudger to said plate, said adjusters moving said illuminator to a desired position prior to securement of said illuminator assembly to said plate.
12. (Original) The fixture according to claim 10, wherein said illuminator assembly has a hinged door that captures the optical flow cell.
13. (Original) The fixture according to claim 10, further comprising:  
a lens extending from said camera mount.
14. (Original) The fixture according to claim 13, further comprising:  
a lens holder assembly positioned between said camera mount and said illuminator assembly, said lens holder having a pair of holder registration pins receivable in a third pair of said plurality of component pin openings, said lens

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holder assembly having a pair of block holes alignable with a fourth set of mount holes for receiving fasteners to secure said lens holder assembly to said plate.